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Metals Engineering Handbook. v. 2

871

COVERAGE: The book covers the following: strength of materials, design of machine parts, connections, transmissions, lubrication, etc. The arrangement of mechanical drawings and symbols used are shown. The book contains GOST (All-Union State Standards) tables for standard machine parts. The book is the second of a five-volume series. There are 79 references, of which 76 are Soviet, 2 are German and 1 English.

TABLE OF CONTENTS:

STRENGTH OF MATERIALS (Candidate of Technical Sciences Demidov, S. P.)

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Joints and supports	1
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Internal forces and moments	3
Stress. State of stress	5
States of stress	8
Displacements and strains	10
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Card 2/19	

PHASE I BOOK EXPLOITATION

871

Belyayev, V. N., Candidate of Technical Sciences; Birger, I. A., Doctor of Technical Sciences; Demidov, S. P., Candidate of Technical Sciences; Korotkov, V. P., Candidate of Technical Sciences; Kudryavtsev, V. N., Doctor of Technical Sciences, Professor; Martynov, A. D., Candidate of Technical Sciences; Niberg, N. Ye., Candidate of Technical Sciences; Ponomarev, S. D., Doctor of Technical Sciences, Professor; Pronin, B. A., Candidate of Technical Sciences; Push, V. E., Candidate of Technical Sciences; Slezников, G. I., Engineer; Stolbin, G. B., Candidate of Technical Sciences; Tayts, B. A., Doctor of Technical Sciences

Spravochnik metallista. t. 2 (Metals Engineering Handbook. v. 2) Moscow, Mashgiz, 1958. 974 p. 100,000 copies printed.

Ed. (title page): Chernavskiy, S. A., Candidate of Technical Sciences; Ed. (inside book): Markus, M. Ye., Engineer (deceased); Tech. Ed.: Sokolova, T. F.; Editorial Board of the set: Acherkan, N. S., Doctor of Technical Sciences, Professor, Chairman of the Board and Chief Ed.; Vladislavlev, V. S. (deceased); Malov, A. N.; Pozdnyakov, S. N.; Rostovskykh, A. Ya.; Stolbin, G. B.; and Chernavskiy, S. A.

PURPOSE: The book is intended for technicians and engineers working in the field of machine design and in production.

Card 1/19

BABKIN, S.I.--- (continued) Card 2.

KHAYT, D.M., kandidat tekhnicheskikh nauk; BYDIL'V. V.Ya., kandidat tekhnicheskikh nauk; SERAYEV, M.U., inzhener, nauchnyy redaktor; SHEDROV, V.S., kandidat tekhnicheskikh nauk, nauchnyy redaktor; TSVETKOV, A.F., dokteant, nauchnyy redaktor; SLEZNIAY, I.I., inzhener, nauchnyy redaktor; MAKHUS, M.Ye., inzhener, nauchnyy redaktor; KARGANOV, V.G., inzhener, nauchnyy redaktor; ASHERKIN, N.S., doktor tekhnicheskikh nauk, professor, redaktor; SOKOLOV, T.F., tekhnicheskiy redaktor

[Manual of machinery manufacture] Spravochnik mashinostroyitelia;  
v trekh tomakh. Moskva, Gos. nauchno-tekhnich. i zavod mashinostroiteli,  
lit-ry. Vol.3. 1-51 1993 p. (GOM, 10:2)

1. Deystvitel'nye chlen Akademii nauk USSR (for Serensen)  
(Machinery)

*Belyayev, V.V.*

BABKIN, S.I., kandidat tekhnicheskikh nauk; BALAKHIN, B.S., professor, doktor tekhnicheskikh nauk; BEYZEL'MAN, R.D., inzhener; ~~BELYAYEV~~, V.N., kandidat tekhnicheskikh nauk; BIHGERP, I.A., kandidat tekhnicheskikh nauk; BOGUSLAVSKIY, P.Ye., kandidat tekhnicheskikh nauk; BOROVICH, L.S., kandidat tekhnicheskikh nauk; VOL'KIR, A.S., professor, doktor tekhnicheskikh nauk; GONIKBERG, Yu.M., inzhener; GORODETSKIY, I.Ye., professor, doktor tekhnicheskikh nauk; GORDON, V.O., professor; DIMENTBERG, F.M., kandidat tekhnicheskikh nauk; DOSCHATOV, V.V., inzhener; IVANOV, A.G., kandidat tekhnicheskikh nauk; KINASOSHVILI, R.S., professor; KODNIR, D.S., kandidat tekhnicheskikh nauk; KOLOMITSSEV, A.A., kandidat tekhnicheskikh nauk; KRUTIKOV, I.P., kandidat tekhnicheskikh nauk; KUSHUL', M.Ya., kandidat tekhnicheskikh nauk; LEVENSON, Ye.M., inzhener; MAZYRIN, I.V., inzhener; MALININ, N.N., kandidat tekhnicheskikh nauk; MARTYNOV, A.B., kandidat tekhnicheskikh nauk; NIBERG, N.Ya., kandidat tekhnicheskikh nauk; NIKOLAEV, G.A., professor, doktor tekhnicheskikh nauk; PETRUSEVICH, A.I., doktor tekhnicheskikh nauk; POZDNYAKOV, S.N., dotsent; PONAMOREV, S.D., professor, doktor tekhnicheskikh nauk; PRIGROVSKIY, N.I., professor, doktor tekhnicheskikh nauk; PRONIN, B.A., kandidat tekhnicheskikh nauk; RESHETOV, D.N., professor, doktor tekhnicheskikh nauk; SATEL', E.A., professor, doktor tekhnicheskikh nauk; SERENSEN, S.V.; SLOBODKIN, M.S., inzhener; SPITSYN, N.A., professor, doktor tekhnicheskikh nauk; STOLBIN, G.B., kandidat tekhnicheskikh nauk; TATYS, B.A., kandidat tekhnicheskikh nauk; TETEL'BAUM, I.M., kandidat tekhnicheskikh nauk; UMANSKIY, A.A., professor, doktor tekhnicheskikh nauk; ~~FEODOS'YEV~~, V.I., professor, doktor tekhnicheskikh nauk;

(Continued on next card)

AL'SHITS, I.Ya., kandidat tekhnicheskikh nauk (and others)..... Card 2.

cheskikh nauk, EYDINOV, V.Ya., kandidat tekhnicheskikh nauk;  
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inzhener, redaktor; KARGANOV, V.G., inzhener, redaktor; SOKOLOVA,  
T.F., tekhnicheskiy redaktor.

[Mechanical engineer's manual; in 6 volumes] Spravochnik mashino-  
stroitelia; v shesti tomakh. Izd.2-e, ispr. i dop. Moskva, Gos.  
nauchno-tekhn.izd-vo mashinostroit. lit-ry, Vol.4, 1955. 851 p.  
(Mechanical engineering) (MLRA 8:12)

BELYAYEV, V.N.

AL'SHITS, I.Ya., kandidat tekhnicheskikh nauk; BABKIN, S.I., kandidat tekhnicheskikh nauk; BALAKSHIN, B.S., doktor tekhnicheskikh nauk, professor; BEYSEL'MAN, R.D., inzhener; BELYAYEV, V.H., kandidat tekhnicheskikh nauk; BEREZINA, N.I., inzhener; BINGER, I.A., doktor tekhnicheskikh nauk; BOGUSLAVSKIY, Yu.M., kandidat tekhnicheskikh nauk; BOROVICH, L.S., kandidat tekhnicheskikh nauk; GONIKBERG, Yu.M., inzhener; GOEDON, V.O., professor; GORODETSKIY, I. Ye., doktor tekhnicheskikh nauk, professor; GROMAN, M.B., inzhener; DIKER, Ya.I., kandidat tekhnicheskikh nauk; DOSCHATOV, V.V., inzhener; IVANOV, A.G., kandidat tekhnicheskikh nauk; KINASOSHVILI, R.S., doktor tekhnicheskikh nauk, professor; KRUTIKOV, I.P., kandidat tekhnicheskikh nauk; LEVENSON, Ye.M., inzhener; MAZYRIN, I.V. inzhener; MARTYNOV, A.D., kandidat tekhnicheskikh nauk; NIBERG, N.Ya., kandidat tekhnicheskikh nauk; NIKOLAYEV, G.A., doktor tekhnicheskikh nauk, professor; PETRUShevICH, A.I., doktor tekhnicheskikh nauk; POZDNYAKOV, S.N., dotaent; PONOMAREV, S.D., doktor tekhnicheskikh nauk, professor; PRONIN, B.A. kandidat tekhnicheskikh nauk; RESHETOV, D.N., doktor tekhnicheskikh nauk, professor; SATEL', E.A., doktor tekhnicheskikh nauk, professor; SIMAKOV, F.F., kandidat tekhnicheskikh nauk; SLOBODKIN, M.S., inzhener; SPITSYN, N.A., doktor tekhnicheskikh nauk, professor; STOLBIN, G.B., kandidat tekhnicheskikh nauk; TATTS, B.A., doktor tekhnicheskikh nauk; CHERNYSHEV, H.A., kandidat tekhnicheskikh nauk; SHNEYDEROVICH, R.M., kandidat tekhnicheskikh nauk;

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TIKHONOV, A.Ya., tekhnicheskiy redaktor.

[Designing machine-tool attachments in the instrument industry]  
Proektirovanie stanochnykh prisposoblenii v priborostroenii. Mo-  
skva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1954.  
231 p. (MLRA 8:2)

(Machine tools)

ACHERKAN, N.S., doktor tekhnicheskikh nauk, professor, redaktor;  
~~BELYAYEV, V.N.~~, kandidat tekhnicheskikh nauk, dotsent;  
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[Machine parts; collection of materials on calculation and design in two volumes] Detali mashin; sbornik materialov po raschetu i konstruirovaniyu v dvukh knigakh. Izd.2. Moskva, Gos. nauchno-tehn. izd-vo mashinostroit. i sudostroit. lit-ry. Vol. 2. 1953. 560 p.

(MLRA 6:12)

(Machinery--Design)

ACHMERKAN, Naum Samoilovich, 1872-, doktor tekhnicheskikh nauk, professor, redaktor; BELYAYEV, V.N., dotsent, kandidat tekhnicheskikh nauk; BIDERMAN, V.L., kandidat tekhnicheskikh nauk; BOROVICH, L.S., kandidat tekhnicheskikh nauk; GASHINSKIY, A.G., inzhener; GORODETSKIY, N.Ye., professor, doktor tekhnicheskikh nauk; IVANOV, B.A., professor, doktor tekhnicheskikh nauk; KOIMIYTSEV, A.A., dotsent, kandidat tekhnicheskikh nauk; KRAGEL'SKIY, I.V., professor, doktor tekhnicheskikh nauk; PETRUSEVICH, A.I., doktor tekhnicheskikh nauk; POZDNYAKOV, S.N., dotsent; PONOMAREV, S.D., professor, doktor tekhnicheskikh nauk; PORTUGALOVA, A.A., kandidat tekhnicheskikh nauk; PRONIN, B.A., kandidat tekhnicheskikh nauk; RESHETOV, D.N., professor, doktor tekhnicheskikh nauk; RESHETOV, L.N., professor, doktor tekhnicheskikh nauk; SAVERIN, M.A., professor, doktor tekhnicheskikh nauk; SAVERIN, N.A., kandidat tekhnicheskikh nauk; SLOBODKIN, M.S., inzhener; SPITSYN, N.A., professor, doktor tekhnicheskikh nauk; STOLBIN, G.B., dotsent, kandidat tekhnicheskikh nauk; UMNOV, V.A., inzhener; CHERNYAK, B.Z., kandidat tekhnicheskikh nauk; SHCHEDROV, V.S., dotsent, kandidat tekhnicheskikh nauk.

[Machine parts; collection of materials on calculation and design in two volumes; vol.1] Detali mashin; sbornik materialov po raschetu i konstruirovaniyu. Izd.2., ispr.i dop. Moskva, Gos. nauchno-tehn. izd-vo mashinostroit. i sudostroit. lit-ry, 1953- .

(MLRA 6:11)

(Machinery--Design)

BIELAJEW, W-N. BELYAYEV

Index Aeronauticus  
Oct. 1953  
Vol. 9

177/910 629.13.012.311

Wing Design Problems in High-Speed Tech.Lotn.  
Aircraft.

7(6), 157-167

Nov./Dec., 1952

Poland

W.N. Bielajew, W. I. Jucharin

Paper translated from the Russian periodical "Technika Vozdushnogo Flota", No. 12, 1946. The authors discuss modern requirements of wing design, problems of strength and deformation, typical solutions and optimum conditions of design.

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600025-6

NETHERLANDS,

Teaching of the general theory of equations  
Int. v Schol., no. 1, 1951

BELYAYEV V. N.

BELYAEV, V. N.

Novoe v issledovanii i raschete ploskoremennykh peredach. (Vestn. Mash., 1948, no. 8, p. 5-18)

Includes bibliography.

Innovation in the study and calculations of flat belt drives.

DLC: TM4.V4

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

BELYAYEV V.N.

BELIAEV, V.N., and V.I. IUKHARIN

K voprosu o konstruktsii skorostnykh kryl'ev. (Tekhnika vozduzhnogo flota, 1946,  
no.12, -p.5-17, illus., diagrs.)

Title tr.: On the problem of high-speed wing construction.

T1504.Th 1946

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress,  
1955.

BELYAYEV, V.N. (Podol'sk, Mikologicheskiy punkt)

Clinical forms of superficial trichophytosis in children and  
adults. Vest.derm. i ven. 33 no.3:23-27 My-Je '59.

(MIRA 12:9)

(RINGWORM

classif. of superficial forms (Rus))

BELYAEV, V.N.

Sensitivity of dysentery germs to antibiotics. Zhur.mikro-biol.epid. i immun. 30 no.5:144 My '59. (MIRA 12:9)

1. Iz Vologodskoy oblasti sanitarno-epidemiologicheskoy stantsii.

(SHIGELLA) (ANTIBIOTICS) (BACTERIA, EFFECT OF DRUGS ON)

BELYAYEV, V. N. Cand Med Sci -- (diss) "Superficial family trichophytosis in rural communities, cities, and workers' settlements and the experience of controlling it." Len, 1959. 18 pp (State Order of Lenin Inst for the Advanced Training of Physicians im S. M. Kirov), 100 copies (KL, 45-59, 149)

BELYAYEV, V.N.

Significance of familial trichophytosis under urban and rural  
conditions in Podolsk District [with summary in English]. Vest.  
derm. i ven. 31 no.3:15-20 My-Je '57. (MIRA 10:11)

1. Iz mikologicheskogo kabineta Podol'skogo rayona (glavnnyy vrach  
detskoy polikliniki No.3 L.L.Sharnina)  
(RINGWORM, epidemiology,  
familial, in Russia (Rus))

BELYAYEV, Vladimir Nikolayevich; MELENT'YEV, V.A., redaktor; FEDOSOVA, N.I.,  
redaktor; GOLUBKOVA, L.A., tekhnicheskiy redaktor

[Balkhash Muskrat farm] Balkhashskoe ondatrovoe promyslovoe khoziaistvo.  
Pod red. V.A.Melent'eva. Moskva, Izd-vo tekhn. i ekon. lit-ry po  
voprosam zagotovok, 1956. 19 p. (MLRA 9:10)  
(Balkhash Province--Muskrats)

BELYAYEV, V.N.

New discovery of the Chinese goose (*Gygnoptis cygneoides* L.) in  
Kazakhstan. Izv.AN Kazakh.SSR.Ser.zool. no.6:139-140 '47.  
(Kazakhstan--Geese) (MLRA 9:6)

BELYAYEV, V.M.

Drilling deep directional holes when prospecting for iron ores  
similar to the type found in the Kursk Magnetic Anomaly. Razved.  
1 okh. nedr 30 no. 10:28-32 6 '64. (MIRA 18;11)

1. Geologicheskoye upravleniye tsentral'nykh rayonov.

ACC NR: AP7000677

of the external and internal layers, pH, condition of the broth after boiling, shrinkage, amount of separated juices, and bacterial content of the external and internal layers. It was established that the most suitable of the investigated materials is polyethylene film because it retains the desirable appearance, freshness and food qualities of the meat. Orig. art. has: 5 tables.

SUB CODE: 06,3/SUBM DATE: none

Card 2/2

ACC NR: AP7000677

(A)

SOURCE CODE: UR/0066/66/000/011/077/0040

AUTHORS: Smol'skiy, N. T.; Pugachev, P. I.; Belyayev, V. M.

ORG: Smol'skiy Moscow Institute of National Economy im. G. V. Plekhanov  
(Moskovskiy institut narodnogo khozyaystva); Pugachev All Union Scientific Research  
Institute of Poultry Processing Industry (Vsesoyuznyy nauchno-issledovatel'skiy  
institut ptitsepererabatyvayushchey promyshlennosti); Belyayev Moscow Technological  
Institute of Meat and Dairy Industry (Moskovskiy tekhnologicheskiy institut myasnoy  
i molochnoy promyshlennosti)

TITLE: Packing and storage of beef in film-type materials

SOURCE: Kholodil'naya tekhnika, no. 11, 1966, 37-40  
packing material,

TOPIC TAGS: food preservation, polyethylene, cellophane, cellulose plastic /  
PE-500 VD polyethylene, TsP-1 cellophane-polyethylene

ABSTRACT: The following films have been tested as packing and storing materials  
preventing the loss of color, moisture, and freshness of beef: 0.05-mm VD poly-  
ethylene PE-500; 0.07-mm cellophane-polyethylene TsP-1; and 0.04-mm cellophane.  
The meat specimens from three- and four-year old animals (weighing 325--350 kg) were  
held (at 2--3°C) for 3 days after slaughter. The specimens were stored at 4--6°C and  
at 65--70% relative humidity for 3, 5, 7, and 9 days. At this time the following  
parameters were measured: freshness (according to GOST 7269-54), moisture content

Cord 1/2

UDC: 637.5.004.4:678.742.2

BELYAYEV, V. M.

"Peridskiye tesnify (k voprosu o persidskom kvantitativnom stikhoslozhenii)." report submitted for 7th Intl Cong, Anthropological & ethnological Sciences,

Moscow, 3-10 Aug 64.

KOMAROV, A.G.; MOSKALEVA, S.V.; BELYAYEV, V.M.; IL'INA, V.I.

Interpretation of magnetic fields over ultrabasic complexes;  
serpentinization and magnetic properties. Dokl. AN SSSR 143  
no.5:1166-1169 Ap '62. (MIRA 15:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut.  
Predstavлено академиком D.I.Shcherbakovym.  
(Ural Mountains--Geology, Stratigraphic)  
(Magnetism, Terrestrial)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600025-6

KUZIN, M.I.; BELYAYEV, V.L.

Use of trimecaine in local anaesthesia. Izvudy L-ge NPF SSSR  
268-273 '64.  
(Zhira 18,3)

BELYAYEV, V.K.

Using the spectral method in laboratory investigations of  
titanium-zirconium placers. Razved. 1 chkh. nadr. 30  
no.5:46-48 My '64.  
(MIRA 17410)

1. Rostovskaya kompleksnaya geologicheskaya ekspeditsiya.

BELYAYEV, V.K. [Bieliaiev, V.K.]

Characteristics of the composition of the titanium-zircon placers in the Tertiary sediments of the southeastern margin of the Voronezh crystalline massif. Dop. AN UkrSSR no.1:112-115 '64. (MIRA 17:4)

1. Institut mineral'nykh resursov AN UkrSSR. Predstavлено академиком AN UkrSSR N.P. Semenenko [Semenenko, M.P.].

Capacitative protection ...

S/120/62/000/003/002/048  
E194/E455

between the equalizer rings. An oscillograph was fitted inside the high-voltage conductor and operated by selsyns from the control panel. The electrostatic generator voltage at the instant of breakdown of gas insulation between conductor and casing was checked by the oscillograph and a voltmeter. Overvoltage factors obtained from oscillograph readings at the instant of breakdown are tabulated; they range from about 6 in the absence of capacitors to about 1.3 with them. The results show the advantages of using a fairly high voltage-gradient along the supporting column. The oscillograph was then connected near to the earthed end of the generator and further measurements were made; again conditions were improved by the use of capacitors. With a conductor voltage of 3.1 MV and 20 breakdowns of the gas insulation during the course of two hours, the capacitors saved the generator insulation from damage, whereas previously breakdown at only 1.3 MV damaged the wood laminate supporting column of the generator. There are 6 figures and 5 tables.

ASSOCIATION: Fiziko-tehnicheskiy institut AN UkrSSR  
(Physicotechnical Institute AS UkrSSR)

SUBMITTED: June 1, 1961  
Card 3/3

Capacitative protection ...

S/120/62/000/003/002/048  
E194/E455

of the rings. It pays to replace the usual metal base plate under the column by an equalizer ring. The relatively high longitudinal capacitance between the high-voltage conductor and the nearest equalizer ring is a favourable factor. This capacitance may be increased by employing large masses of glass in the supporting structure of the horizontal generator. The stray capacitance of the equalizer rings may be diminished by using a casing of large diameter, particularly one that becomes wider near to the conductor, and by reducing as much as possible the diameter of the horizontal columns - the accelerator tubes. Moreover the series capacitance of some of the equalizer rings may be artificially increased. Expressions are derived for the values of capacitance that give the best voltage distribution between the equalizer rings, and the short-circuit characteristics of the generator may be constructed from these equations. The difficulty in using this method is that suitable small sized high-voltage capacitors are not available to give the optimum results. However, in a particular 5 MeV generator, capacitors type KOB-2 (KOB-2) of 20 kV, 500 pF were connected

Card 2/3

39145  
S/120/62/000/003/002/048  
E194/E455

2.0.2.11

AUTHOR: Belyayev, V.Kh.

TITLE: Capacitative protection of the accelerator tube and supporting column of an electrostatic generator during breakdown

PERIODICAL: Pribory i tekhnika eksperimenta, no.3, 1962, 22-26

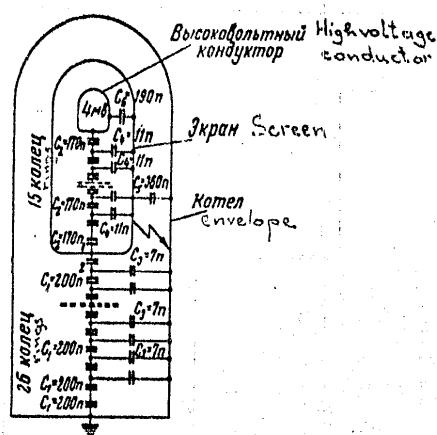
TEXT: In electrostatic generators, breakdown of gaseous insulation between the high-voltage conductor and the earthed casing gives rise to overvoltages between equalizer rings near to the high-voltage conductor. In recent years, generator conductor potentials have risen to 6.5 to 7 MV or more, without intermediate screens; these trends tend to raise the overvoltage factor and the resulting overvoltages may damage the accelerator tube or the supporting column insulators. Calculation of overvoltages is simplified by the method of determining the equivalent earth capacitance at various points in the circuit. An expression can then be derived for the voltage between the high-voltage conductor and the nearest equalizer rings. The expression shows that one way to reduce the overvoltage is to reduce the stray capacitance

Card 1/3

20674

Overvoltages in an Electro-  
static Generator

S/120/61/000/001/005/062  
E032/E114



Card 4/4

Fig. 1

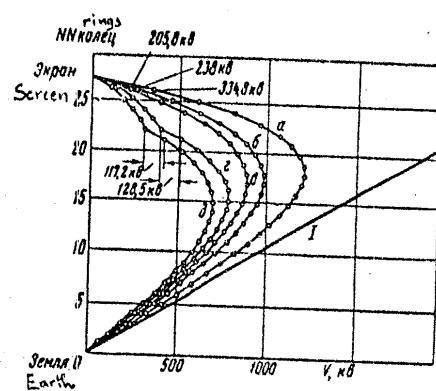


Fig. 2

20674  
S/120/61/000/001/005/062  
Overvoltages in an Electrostatic... E032/E114

There are 2 figures and 8 references: 3 Soviet and 5 English.

ASSOCIATION: Fiziko-tehnicheskiy institut AN USSR  
(Physico-technical Institute, AS Ukr.SSR)

SUBMITTED: February 4, 1960

Card 3/4

X

20674

S/120/61/000/001/005/062  
E032/E114

Overvoltages in an Electrostatic Generator

- a)  $C_1 = 200 \mu\text{f}$ ,  $C_3 = 7 \mu\text{f}$ ,
- b)  $C_1 = 200 \mu\text{f}$ ,  $C_3 = 4 \mu\text{f}$ ,
- c)  $C_1 = 250 \mu\text{f}$ ,  $C_3 = 4 \mu\text{f}$ .

The straight line marked I represents the steady state conditions. The short circuit characteristics lead to the following conclusions: 1) The maximum overvoltage depends on the ratio  $C_3/C_1$  and the voltage on the screen; 2) A reduction in the capacitance between the rings  $C_1$  leads to a small reduction in the maximum overvoltage; 3) The resulting overvoltage is of a local character and tends to fall off rapidly on rings nearest to the screen. A further reduction in the maximum voltage may be achieved by an additional increase in the capacitance  $C_1$  between the rings in the upper part of the column and screen. Curve 2 in Fig.2 was computed for  $C_3 = 4 \mu\text{f}$  and  $C_1$  for the five upper rings equal to  $400 \mu\text{f}$ , the capacitance of the remaining (lower) rings being  $200 \mu\text{f}$ . Finally, curve d was calculated for  $C_3 = 4 \mu\text{f}$ ,  $C_1$  for the five upper rings being equal to  $500 \mu\text{f}$  and the remaining rings having  $C_1 = 200 \mu\text{f}$ .

Card 2/4

X

20674

26.2351

S/120/61/000/001/005/062  
E032/E114

AUTHOR: Belyayev, V.Kh.

TITLE: Overvoltages in an Electrostatic Generator

PERIODICAL: Pribory i tekhnika eksperimenta, 1961, No.1, pp.23-24

TEXT: An electrostatic generator can be represented as a set of charged equivalent capacitances as shown in Fig.1 (Miller, Ref.4). During the breakdown of the gas insulation, for example, between the screen and the outer (earthed) envelope of the generator, the capacitance of the screen  $C_5$  discharges, and if one neglects the resistance of the spark gap, the screen becomes earthed. The capacitances  $C_1$  discharge through the spark gap while the capacitances  $C_3$  charge  $C_1$  with opposite polarity. In Fig.1,  $C_1$ ,  $C_2$  is the total axial capacitance of an equipotential ring of the column and the electrode of the accelerator tube,  $C_3$ ,  $C_4$  is the radial capacitance of the equipotential ring,  $C_5$  is the capacitance of the screen and  $C_6$  is the capacitance of the high voltage conductor. Fig.2 shows the calculated voltage distributions (short-circuit characteristics) along the column for the following parameters:

Card 1/4

Belyayev, U.Kh.

## 9(51a) PHASE I BOOK INFORMATION 807/2766

Akademicheskii Izdatel'stvo Fiziko-tekhnicheskogo Instituta  
Elektrostaticheskii Generator; stol'niki stat'ii (Electrostatic Generators;  
Collection of Articles) Moscow, Atomizdat, 1959. 255 p. 4,100 copies  
performed.

Ed. (Chief Name): A. K. Val'ner, Member, Academy of Sciences, USSR; Ed. (Inside  
Name): Z. D. Andreyenko; Tech. Ed.: N. A. Plasova.

NOTES: This collection of articles may be useful to scientists and engineers  
working with high-voltage electrostatic generators.

CONTENTS: The authors discuss the construction and operation of a number of  
electrostatic generators developed in the USSR and describe methods of gener-  
ating negative hydrogen ions. They also discuss the operation of accelerating  
tubes and present methods of stabilizing accelerating voltages. No per-  
matrices are mentioned. References appear at the end of some articles.  
Koval' A. G., I. K. Kapitonov, A. D. Tikhonov and Yu. M. Fazek. Problem  
of Production of Negative Hydrogen Ions by Overcharging Positive  
Ions in a Cathode-Changeable Electrostatic Generator. 15

The authors discuss a cathode-changeable hydrogen ion source based on the pro-  
duction of a negative ion beam by overcharging positive ions in a gas  
flowing through a cathode channel or a cathode recessed anode. They  
also derive expressions for determining the current of negative hydrogen ions  
in these beams. There are 11 references. 6 Soviet, 4 English and 1  
German.

Val'ner, A. K., A. Ya. Tarasov, L. I. Pavlenko, Ya. M. Popov, V. N.  
Dobrovolskii and S. P. Faykin. Some New Developments in Electrostatic  
Generators. 195

The authors discuss the principle of operation and construction of  
a 50-5 type electrostatic generator and construction of ion  
accelerating and overcharging. They also explain the operation of  
ion accelerating tubes and briefly discuss the stabilization  
and synchronization of generation voltages. There are 12 references:  
5 Soviet and 7 English.

Val'ner, A. K. and A. A. Terekhko. Experience Acquired in the Design,  
Testing and Operation of a Heavy Vertical Electrostatic Accelerator De-  
veloped by PFT. As Undersecretary 200

The authors discuss the construction and requirements of a 10-Mev  
vertical electrostatic accelerator developed by PFT. As Undersecretary  
and present the results of a study of insulating materials for the ac-  
celerator and the accelerating tube. They also discuss the results of  
testing of the accelerator and its components and present the current and  
voltage characteristics. There are 12 references: 6 Soviet, 3 English  
and 3 French.

Balashov, I. P., V. O. Zhuravlev and G. Ya. Roshal'. Experience Ac-  
quired in the Development of Industrial Types of Electrostatic Generators  
The authors discuss the construction and operation of a 50-5.5 million-  
volt electrostatic generator and its components and present the results of  
tests. They also briefly describe the operation of a 10-5.1-type  
5-million-volt electrostatic generator developed by OKB in 1956.  
There are 9 references: 4 Soviet (including 1 translation) and 5  
English.

AVAILABLE: Library of Congress

Classification: SP-126  
1-1-5-2

## PHASE I BOOK EXPLORATION

9(3)A

SOI/2746

Academy наук USSR. Fiziko-tekhnicheskiy Institut Eletrostaticheskoye generatory; stolnaya stroy (Electrostatic Generators; Collection of Articles) Moscow, Atomizdat, 1959. 255 p., 4,100 copies printed.

Rus. (Title page): A. K. Val'ter, Member, Academy of Sciences, USSR; Ed. (Inside book): Z. D. Andreyenko; Tech. Ed.: N. A. Vlasova.

**PURPOSE:** This collection of articles may be useful to scientists and engineers working with high-voltage electrostatic generators.

**COVERAGE:** The authors discuss the construction and operation of a number of electrostatic generators developed in the USSR and describe methods of generating various negative hydrogen ions. They discuss the operation of accelerating tubes and associated apparatus. Some applications of ion beams to medicine are mentioned. References appear at the end of some articles.

Serbinov, I. M. High-Frequency Sources for Electrostatic Generators. In 1959-1955, 5 factors affecting the properties of hydrogen in a transverse magnetic field and those affecting the properties of ions in a 10-50-mc Frequency range and initial measurements in the discharge chamber of 1 through 100-amp. He also discusses the construction and operation of a high-frequency ion source. There are 5 references: 2 English and 3 German.

Balashov, I. Sh., A. K. Val'ter, K. K. Chernyavskiy and S. P. Tsvetkov. High-Voltage Vertical-Horizontal Electrostatic Generator.

The authors discuss the construction and operation of an electrostatic generator with a cross-shaped steel boiler and two horizontal electrodes. They describe a procedure of such a design over 10 citations: 13 English, 1 French and 1 Danish.

Ostrikov, G. M. Magnetic Analyzer as an Instrument for Measuring Voltages of an Electrostatic Generator. The author discusses the basic of a magnetic analyzer for measuring voltages of an electrostatic generator. He briefly explains the construction of the analyzer and describes the procedure used in measurement. There are 3 references: 8 Soviet, 13 English, all English.

Ostrikov, G. M. and I. A. Cherpurchenko. Voltage Stabilization of an Electrostatic Generator. The author discusses the construction and operation of a voltage stabilizer and its elements such as a differential amplifier and a corona triode and describes the method of experimentally determining the degree of stabilization. There are no references.

Popov, Yu. M., M. M. Matish, V. E. Polik and Ye. I. Skuratov. Ion Accelerating Tubes of Ion Sources in a Compressed Gas.

The authors discuss the characteristics of ion sources for electrostatic generators and describe the construction of a magnetic ion source with a cold cathode and a high-frequency source. They also discuss the experimental study of these sources and describe the experimental results. There are 29 references: 9 Soviet, 13 English and 2 German.

Popov, Yu. M., L. I. Kroumnik, A. G. Korobk, and A. D. Timofeev. Source of Negative Hydrogen Ions for an Overcharged Electrostatic Generator. The authors describe the construction and operation of an overcharged ion source developed by PMI All USSR and discuss the analysis of their characteristics. The first and the second parts were developed in 1955 and 1956 respectively. The third part, the article later, is essentially a copy of that developed by Weiland, J., and Schatzmann, J. K. of the University of Wisconsin, U. S. A. The authors discuss the characteristics of these. Outside the authors discuss the characteristics of spectra, methods of determining the coefficient of transformation of positive ions into negative, focusing of ion beams and loss of ion current. There are 9 references: 5 Soviet, 3 English and 2 German.

Fedorov, I. I. Accelerating Tube of an Electrostatic Generator. The author briefly discusses factors affecting the strength of the accelerating tube and describes procedures taking place on the walls of the accelerating electrode. He lists 27 references: 10 Soviet, 10 English, 7 German, 1 French and 1 Polish.

Popov, Yu. M. Accelerating Tubes of Ion Sources. The author discusses the characteristics of ion sources and describes the construction and operation of ion sources. He lists 29 references: 10 Soviet, 10 English and 9 French.

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BELYAYEV, V.I.

Effect of direct current anod~ and cathode on the electrical activity of a single Ranvier node in hyposodium medium and under the action of novocaine. Biul.eksp.biol.i med. 57 no.5:3-6 My '64.  
(MIRA 18:2)

1. Fiziologicheskaya laboratoriya (zav. - prof. L.L.Shik) Instituta khirurgii imeni Vishnevskogo (dir. - deystvital'nyy chlen AMN SSSR prof. A.A.Vishnevskiy) AMN SSSR, Moscow. Submitted January 29, 1963.

KHODOROV, E.I.; BELYAYEV, V.I.

Role of the degree of local response increase in the generation  
of the action potential of a single Ranvier's node in an isolat-  
ed frog nerve fiber. Biofizika 8 no.4:461-466 '63.

(MIRA 17:10)

1. Institut khirurgii imeni Vishnevskogo AMN SSSR, Moskva.

KHODOROV, B.I.; BELYAYEV, V.I.

Generation of action potentials in single Ranvier's nodes of isolated frog nerve fibers under the influence of nickel and cadmium ions. Biul. eksp. biol. i med. 57 no.4:3-8 Ap '64.

(MIRA 18:3)

1. Fiziologicheskaya laboratoriya (zav. - prof. L.L. Shik)  
Instituta khirurgii imeni Vishnevskogo (dir. - deyствител'nyy chlen AMN SSSR prof. A.A. Vishnevskiy) AN SSSR, Moskva. Submitted April 13, 1963.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600025-6

BELYAYEV, V. I. et al.

"Determination of intensity of the radioactive contamination in the ocean."

report presented at the 3rd Intl Conf, Peaceful Uses of Atomic Energy, Geneva,  
31 Aug-9 Sep 64.

ACC NR: AP6010203

SOURCE CODE: UR/0201/66/000/001/0062/0065

AUTHORS: Skokov, P. I.; Belyayev, V. I.

ORG: Belorussian Polytechnic Institute (Belorusskiy politekhnicheskiy institut) *45 B*

TITLE: The problem of raising deformation resistance by increasing the testing rate

SOURCE: AN BSSR. Vestsi. Seryya fizika-tehnichnykh nauk, no. 1, 1966, 62-65

TOPIC TAGS: tensile strength, deformation rate, ~~strength theory~~, probability distribution, stress load *46*

ABSTRACT: The behavior of materials under high loading rates is investigated and, in particular, the increase in their tensile strength is evaluated. The most reliable method of investigating this phenomenon is by referring to the statistical theory of stress-strain behavior. A set of density distribution curves is obtained depicting the probability of stresses of second kind in a material at various loading zones and under various loading rates. These include conditions of no-load, tensile loads at two different rates, and critical loading conditions under two different rates. Equations are obtained for each stress curve, and it is shown that the tensile strength does increase under high loading rates if there is an equilibrium distribution in the stress along the material cross section. Orig. art. has: 8 formulas and 1 figure.

SUB CODE: 11/ SUBM DATE: 150et65/ ORIG REF: 007

BELYAYEV, V.I.; ANNENKOVA, V.Z.; IVANOVA, I.T.; KONYUMOVA, G.E.;  
KURYAYEV, B.S. (deceased)

Polymerization of  $\alpha$ -chlorocrotonic acid. Izv. SO AN SSSR no. 3  
Ser. khim. nauk no. 1:144-145 '66. (MIRA 18.8)

1. Irkutskiy institut organicheskoy khimii Sibirskogo  
otdeleniya AN SSSR.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600025-6

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EXPIRES 10-12-2013 BY SP2 DPO/DO

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600025-6

As can be seen from Figure 1, the absorption bands of the polyimide film are considerably shifted to longer wavelengths than those of the corresponding monomer. The absorption maximum of the polyimide film at 300 nm is due to the absorption of the imide group. The absorption maximum of the polyimide film at 350 nm is due to the absorption of the carbonyl group. The absorption maximum of the polyimide film at 400 nm is due to the absorption of the carbonyl group.

BELYAYEV, Vasiliy Ivanovich; NEKHAY, V.T., red.; DUBOVIK, A.P.,  
tekhn. red.

[Investigation of the metal fatigue process] Issledovanie pro-  
tsessa ustalosti metallov. Minsk, Izd-vo M-va vysshego, sred-  
nego spetsial'nogo i professional'nogo obrazovaniia BSSR, 1962.  
109 p. (MIRA 15:8)

(Metals--Fatigue)

On the Changed Composition of Phases of a  
Copper Oxide Catalyst During the Oxidation of  
Propylene to Acroleine

F1547  
S/153/59/002/06/021/029  
B15/B000

their surfaces. The activity of the catalyst may be recovered in a simple way by passage of a mixture with an elevated oxygen content. It was also shown (Figure) that CuO had a stabilizing effect on the activity of the copper catalyst during the oxidation of propylene to acroleine. There are 1 figure, 3 tables, and 8 references, 6 of which are Soviet.

ASSOCIATION: Vostochno-sibirskiy filial SO AN SSSR (East Siberian Branch  
of the Siberian Department of the AS USSR)

Card 3/3

On the Changed Composition of Phases of a  
Copper Oxide Catalyst During the Oxidation of  
Propylene to Acroleine

57843  
S/153/59/002/06/021/029  
B115/B000

assume the composition of a mixture of  $\text{Cu}_2\text{O}$  (about 70%) and  $\text{CuO}$  (about 30%) a short time after the passage of the propylene-oxygen mixture. With catalysts having a higher (3 to 5%) content of  $\text{CuO}$ , the composition of the catalyst after the reaction is  $\text{CuO} + \text{Cu}_2\text{O} + \text{Cu}$ . The yield of carbonyl compounds is considerably reduced by the appearance of metallic copper in the catalyst. The introduction of Ag or  $\text{Al}_2\text{O}_3$  into the catalyst has an analogous effect. Analogous results were obtained, when silicon carbide was used as carrier (Table 2), with the degree of inactivation depending, however, on the oxygen content in the gas mixture, too. An additional reason for the inactivation of the catalysts is the sintering process of  $\text{CuO}$  which loses thereby its capacity to reduce itself to  $\text{Cu}_2\text{O}$ . This was established to occur with copper oxide catalysts annealed at different temperatures (see Table 3). Catalysts annealed at higher temperatures are less active, as is evident from the results. A further reason for the inactivation of the catalysts is the polymerization of acroleine on

Card 2/3

5.1190

5(3)

AUTHORS:

Popova, N. I., Belyayev, V. L.,  
Vermel', Ye. Ya.

57843  
S/153/59/002/06/021/029  
B715/B000

TITLE:

On the Changed Composition of Phases of a Copper Oxide,  
Catalyst During the Oxidation of Propylene to Acroleine

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya  
tekhnologiya, 1959, Vol 2, Nr 6, pp 926-929 (USSR)

ABSTRACT:

A brief survey of relevant publications is given by the authors, and S.Z.Roginskiy and others (Ref 5), O.V.Isayev, M.Ya. Kushnerev and L.Ya.Margolis (Ref 7) are mentioned in this connection. In this paper, the relation between the change of phase composition of the catalyst and its activity has been investigated, and a number of catalysts have been analyzed (after oxidation of the propylene at 368 to 370° for one hour) according to Tananayev (Ref 8). The activity of the catalyst was related to the yield of carbonyl compounds in unit of time (related to oxygen). Results are given in table 1. They show that the change of the chemical composition of the catalyst depends chiefly on the CuO concentration in the carrier. With a CuO content of 1.5% in the carrier, the catalyst changes to

Card 1/3

~~SECRET~~  
POPOVA, N.I.; EMLYAYEV, V.I.; STUKOVA, R.N.

Studying catalytic oxidation of propylene. Izv.vost.fil.AN SSSR  
no.7:40-50 "57. (MIRA 10:10)

1. Ural'skiy filial AN SSSR.  
(Propene) (Acrolein) (Copper oxides)

Investigation of Chemical Conversions of Unsaturated and High 62-1-10/21  
Molecular Compounds. Part 7

of a certain polymerization chain, which according to experiments has a much higher activity. Vinyltertiarybutyl ether, when heated with benzoyl peroxide, did not form any polymers and remained unchanged. The same result was obtained during heating with dinitrile asoisobutyric acid.

It was established that the vinyltertiarybutyl ether content in the copolymer with methylmethacrylate increases with the increase of its concentration in the initial monomer mixture.

Tables, graph. There are 7 Slavic references.

ASSOCIATION: Academy of Sciences of the USSR, Institute of Organic Chemistry imeni N. D. Zelinskiy

PRESENTED BY:

SUBMITTED: December 30, 1955

AVAILABLE:  
Card 2/2

REL VARY V. I.

AUTHORS: Shostakovskiy, M. F.; Khomutov, A. M.; Belyayev, V. I. 62-1-10/21

TITLE: Investigation of Chemical Conversions of Unsaturated and High Molecular Compounds. Part 7. Copolymerization of Vinyltertiarybutyl Ether and Methyl Ether of Methacrylic Acid  
(Issledovaniya v oblasti khimicheskikh prevrashcheniy nepredel'nykh i vysokomolekulyarnykh soedineniy. Soobshcheniye 7. Sopolimerizatsiya viniltretichnobutilovogo efira i metilovogo efira metakrilovoy kisloty)

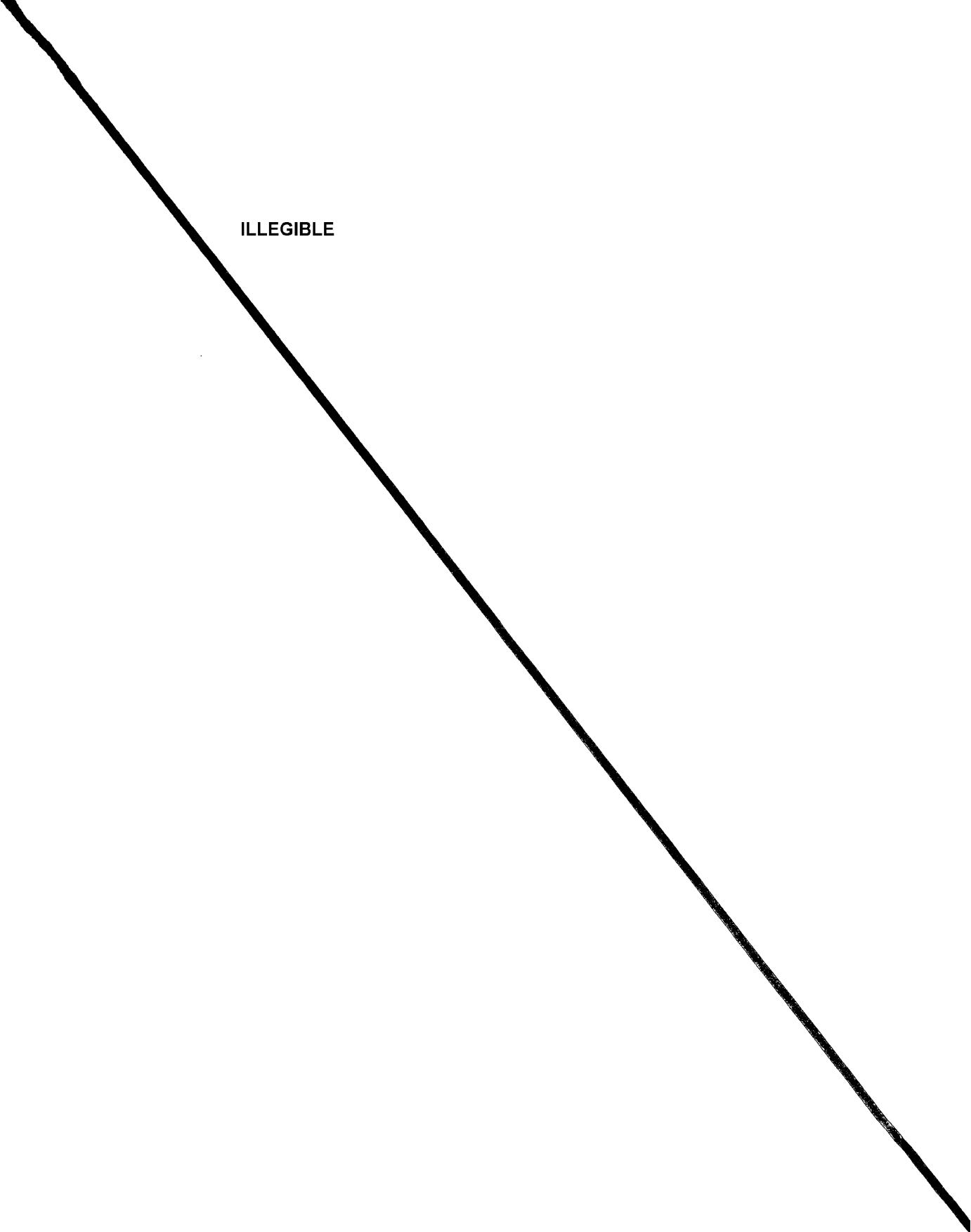
PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Khimicheskikh Nauk, 1957,  
No. 1, pp. 70-74 (U.S.S.R.)

ABSTRACT: The laws governing the copolymerization of vinyltertiarybutyl ether and methyl methacrylate are discussed. It was found that the yields of the copolymers obtained depend upon the chemical structure of the initiators. The reduction in the yields of copolymers os methylmethacrylate and vinyltertiary butyl ether is explained by the low activity of the polymerization chain having a butyl ether with free valence. The use of dinitrylazoisobutyric acid leads to the formation

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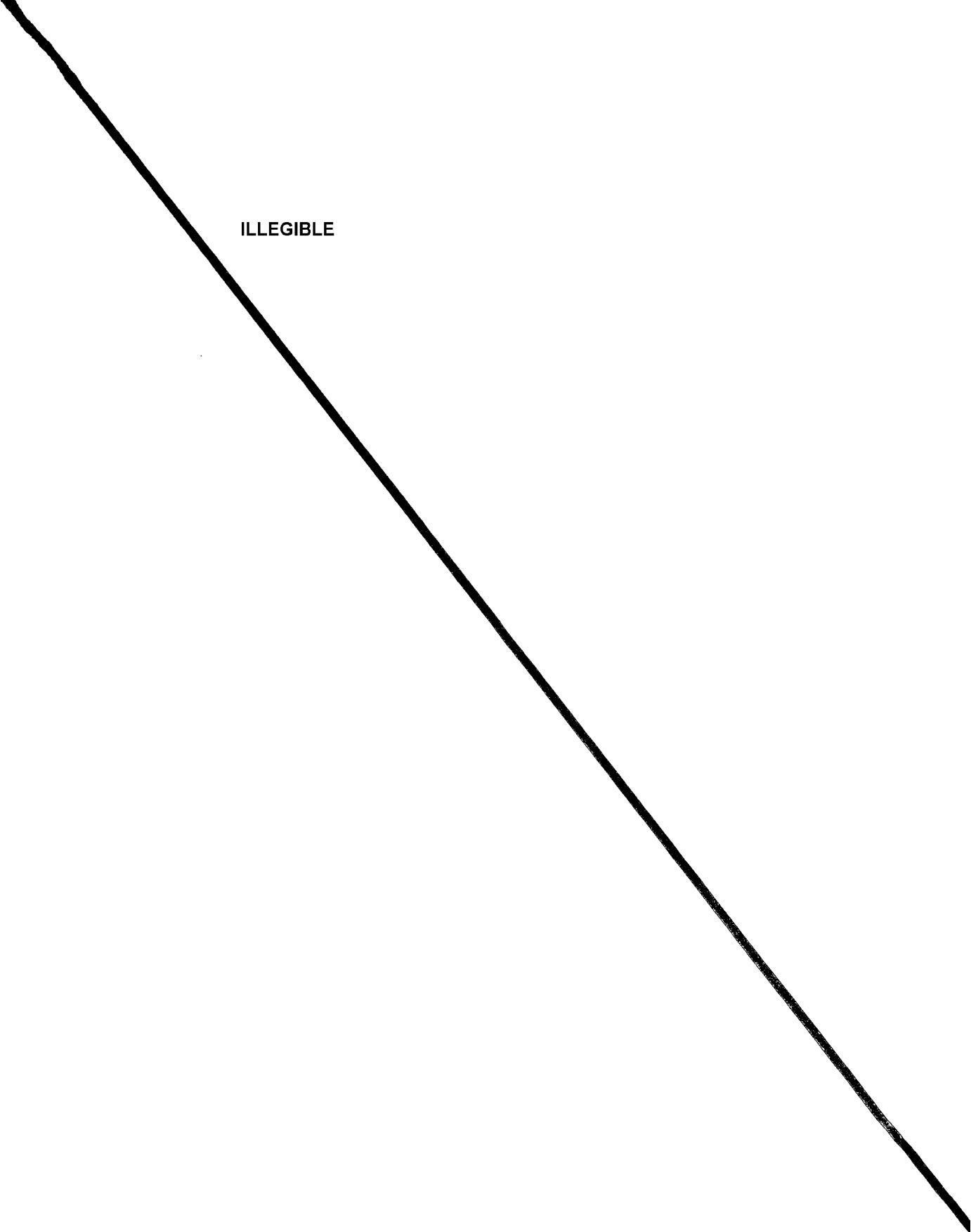
SHOSTAKOVSKIY, M.F.; SHIKHIYEV, I.A.; BELYAYEV, V.I.

Research in the field of oxygen containing organosilicon compounds.  
Part 5. Preparation of organosilicon acetals. Zhur. ob. khim. 26  
no.3:706-709 Mr '56. (MLRA 9:8)

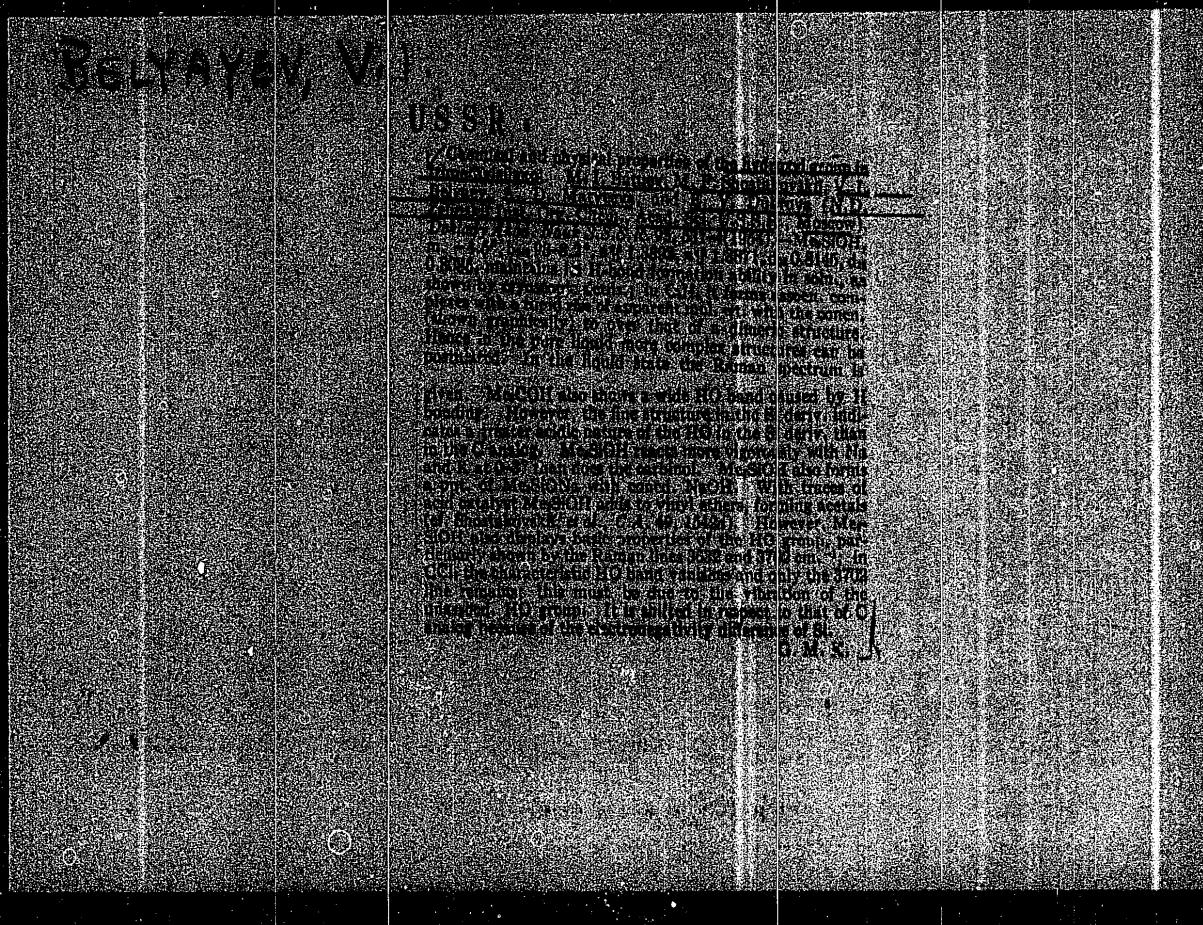
1. Institut organicheskoy khimii Akademii nauk SSSR.  
(Silicon organic compounds) (Acetals)

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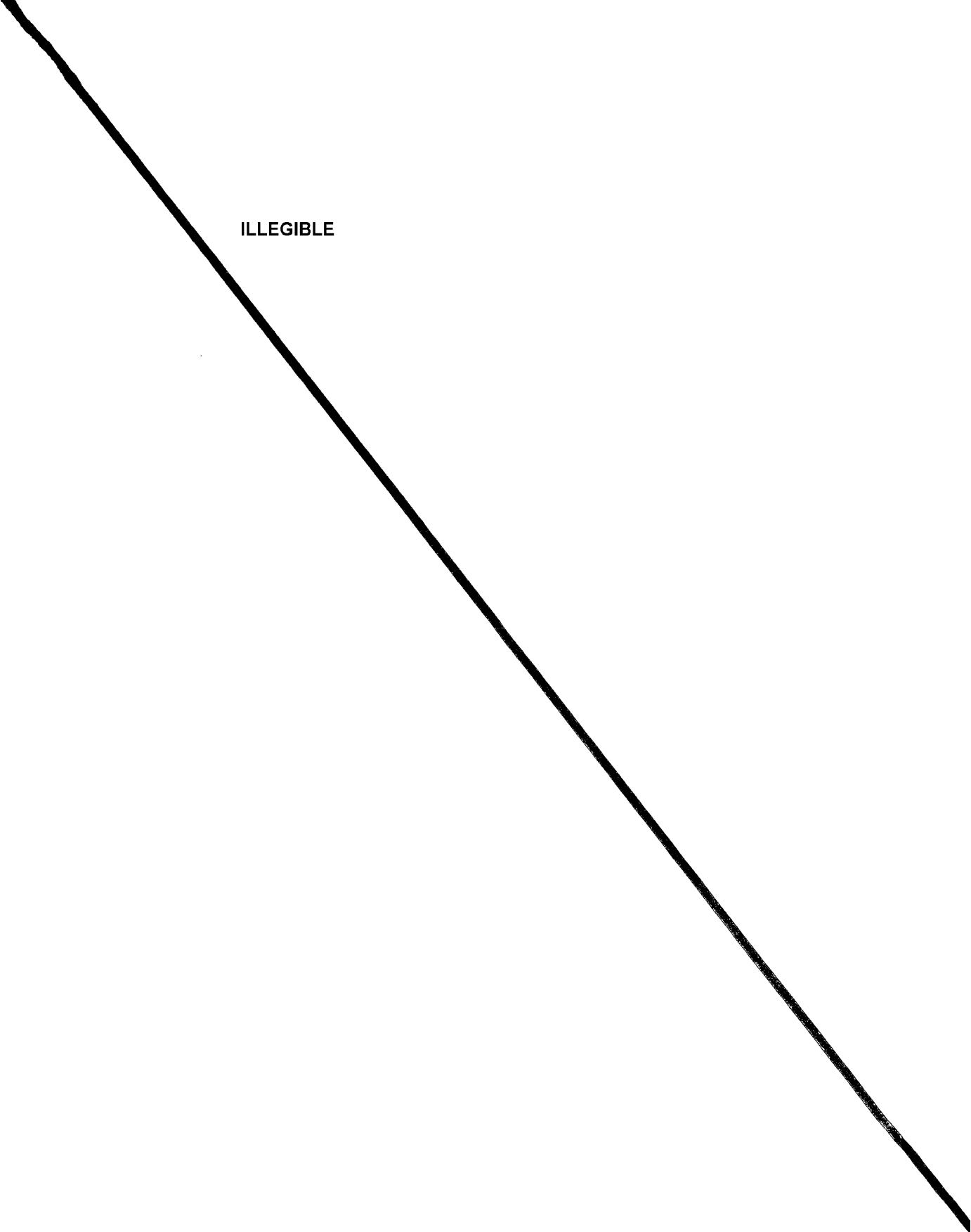


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**BELYAYEV, V.**

G. M. Kosolapoff

◎

*Relyayev, V.I.*  
SHOSTAKOVSKIY, M.F.; SHIKHIYEV, I.A.; RELYAYEV, V.I.

Investigation in the field of synthesis of derived tertiary unsaturated alcohols. Dokl.AN Azerb.SSR 10 no.11:759-765 '54.  
(MIRA 8:10)

1. Predstavлено деяствител'nym chlenom Akademii nauk Azerbay-dzhanskoy SSR Yu.G.Mamedaliyevym.  
(Alcohols)

BELYAYEV, V.I.

SHOSTAKOVSKIY, M.F.; SHIKHIYEV, I.A.; VLASOV, V.M.; BELYAYEV, V.I.

Synthesis of vinylisopropyl, vinylidibutyl and vinyldiamyl ethers  
and their conversions. Dokl. AN Azerb. SSR 10 no.7:473-482 '54.  
(MLRA 8:10)

1. Predstavleno deystvitel'nym chlenom Akademii nauk Azerbaydzhan-  
skoy SSR Yu.G.Mamedaliyevym.  
(Vinyl polymers)

*BELYAYEV, V.I.*

SHOSTAKOVSKIY, M.F.; SHIKHIYEV, I.A.; BELYAYEV, V.I.

Investigation in the field of derivatives of tertiary unsaturated alcohols. Report no.3. Synthesis of dimethylacetylenyl(vinyl)- and methylethylacetylenyl(vinyl)-tert-butyl acetals. Izv. AN SSSR Otd.khim. nauk no.5:945-948 S-0 '54. (MLRA 8:3)

1. Institut organicheskoy khimii Akademii nauk SSSR.  
(Acetals)

SVESHNIKOVA, A.F., kand. veter. nauk; TARKHANEYEV, P.F., nauchnyy sotrudnik;  
RAKHALOV, Ye.M. (Omskaya oblast'); ARTYUHENOV, A.G. (Omskaya  
oblast'); BELYAYEV, V.I. (Omskaya oblast')

Testing trichlorometaphos-3 against warble flies. Veterinarija  
42 no.11:49-50 N '65. (MIRA 19:1)

1. Sverdlovskaya nauchno-issledovatel'skaya veterinarnaya  
stantsiya (for Sveshnikova, Tarkhaneyev).

KHODOROV, B.I.; BELYAYEV, V.I.

Modification of the level of critical depolarization and the  
action potential of electrotonus in a single Ranvier's node  
under the condition of the ionic effect of cadmium and nickel.  
Biofizika 8 no.6:707-714 '63. (MIRA 17:7)

1. Institut khirurgii imeni A.V. Vishnevskogo AMN SSSR, Moskva.

BELYAYEV, V.I. (Kolomna)

Studying the section "approximate computation" in the arithmetic  
course of the sixth grade. Mat. v shkole no.4:34-39 Jl-Ag '61.  
(MIRA 14:8)

(Approximate computation--Study and teaching)

BEZZONOV, P.A. (Moskva); BELYAYEV, V.I. (Kolomna); BUDANTSEV, P.A.  
(Orenburg); KARANOV, G.I. (Melekess); MAYOROV, S.V. (Moskva);  
MURAVIN, K.S. (Moskva); PREDEIN, P.G. (Gubakha, Permskoy oblasti);  
SIKORSKIY, K.P. (Moskva); TARASYUK, V.Ye. (Kiyev); KHABIB, R.A.  
(Samarkand).

Discussing plans of programs. Mat.v shkole no.1:4-24 Ja-F '60.  
(MIRA 13:5)

1. Zaveduyushchiy kafedroy vysshey matematiki Moskovskogo instituta  
khimicheskogo mashinostroyeniya (for Bezzonov).  
(Mathematics--Study and teaching)

30V/44 - 58 - 4- 2659

Translation from: Referativnyy zhurnal, Matematika, 1958,  
Nr 4, p 9 (USSR)

AUTHOR: Belyayev, V.I.

TITLE: On the Nature of Exercises in Identical Transformations  
(O kharaktere uprazhneniy v tozhdestvennykh preobra-  
zovaniyakh)

PERIODICAL: Uch. zap. Kolomensk. ped. in-ta, 1956, Nr 1,  
pp 35 - 52

ABSTRACT: The problems of the place and the role of identity  
transformations in a secondary school algebra course and the  
selection of exercises are studied. It is shown that  
exercises often are abstract and monotonous and that they must  
be diversified and made more concrete by means of problem  
solving. Concrete examples of exercises on identity trans-  
formations are cited, including those of a practical  
nature.

Ye. V. Vanyasheva

Card 1/1

BELYAYEV, V.I. (Kolomna)

Identity transformations of irrational expressions in a course  
for the eighth class. Mar. v shkole no.2:69-75 Mr-Ap '55  
(Transformations (Mathematics)) MLRA 8:6

MNATSAKANOV, I.I.; BELYAYEV, V.I.

Fibromatosis of the omentum and mesentery of the small and large intestines. Vest.khir. 77 no.4:108-110 Ap '56. (MLRA 9:8)

1. Iz khirurgicheskogo otdeleniya (nach. I.I.Mnatsakanov) Simferopol'skogo kruzhnogo voyennogo gospitalya. Simferopol', ul. Gor'kogo 18.  
(FIBROMA

mesentery & omentum of small intestine & colon)

(MESENTERIES. neoplasms  
fibroma)

(OMENTUM, neoplasms  
same)

MAKSIMENKOV, Aleksey Nikolayevich, prof.; BELYAYEV, V.I., kand.  
med. nauk; VINOGRADOVA, V.G., ~~kand. med. nauk~~; ZAYTSEV,  
Ye.I., dots.; ZOLOTAREVA, T.V., prof.; MIKHAYLOV, A.G.;  
MIKHAYLOV, S.S., prof.; YELISEYEV, V.A., red.; KHARASH,  
G.A., tekhn. red.

[Internal structure of the stems of peripheral nerves] Vnutri-  
stvol'noe stroenie perifericheskikh nervov. Leningrad, Medgiz,  
1963. 374 p. (MIRA 6:9)

1. Chlen-korrespondent AMN SSSR (for Maksimenkov).  
(NERVES, PERIPHERAL)

KHODOROV, B.I.; BELIAEV, V.I.

Study of the mechanism of novocaine effect on the electrical activity of a single Ranvier's node. Biofizika 10 no.4: 625-633 '65. (MFRA 18:8)

1. Institut Khirurgii im. A.V. Vishnevskogo AMN SSSR, Moskva.

FEDOROV, V. I., BOIYANIN, V. I.

Reparative effect of nickel and carbon fibers upon the suppressed  
order of Pavlov. Radiotekhnika i elektronika, No. 3, 1964.  
(MIRA 18:8)

3. Priborostrojenskaya Akademiya Sistem Avtomatyki i Vychisliteli AMN SSSR,  
Moskva.

1. The article discusses the results of research on the effect of adding small amounts of nickel and carbon fibers to the suppressed order of Pavlov. The authors found that the addition of these fibers to the order significantly improves its characteristics, particularly its stability and reliability. The article also discusses the potential applications of this technology in various fields, such as communications and automation.

2. The article is written in Russian and is published in the journal "Radiotekhnika i elektronika" (Radioelectronics and Electronics), No. 3, 1964. The article is cited in the MIRA 18:8 issue of the same year.

3. The article is from the collection of scientific publications of the Institute of Automation and Computer Systems of the Academy of Sciences of the USSR, Moscow.

BELYAYEV, V.I.

Change of electric activity in a single Ranvier's node of an isolated nerve fiber under the influence of novocaine. Biul. eksp. biol. i med. 56 no.8:24-28 Ag '63. (MIRA 17:7)

1. Iz fiziologicheskoy laboratorii (zav. - prof. L.L. Shik) Instituta khirurgii imeni A.V. Vishnevskogo (direktor - deyствител'nyy chlen AMN SSSR prof. A.A. Vishnevskiy) AMN SSSR, Moskva. Predstavлено deyствител'nym chlenom AMN SSSR A.A. Vishnevskim.

BELYAYEV, V.I.; OVCHINNIKOV, M., red.

[Public health in Yaroslavl in the past and in the present]  
Zdravookhranenie IAroslavlia v proshlom i nastroiashchem.  
IAroslavl', IAroslavskii med. in-t, 1961. 135 p.  
(MIRA 17:4)

\*

MATVEYEV, G.A., doktor tekhn. nauk; BELYAYEV, V.I., inzh.

Effect of economic and operational factors on the optimum characteristics  
of the convective section of boiler units. Teploenergetika 11 no.6:78-81  
Je '64. (MIRA 18:7)

1. Energeticheskiy institut AN SSSR.

MATVEYEV, G.A., doktor tekhn. nauk; BELYAYEV, V.I., inzh.

Technical and economic basis for choosing gas velocities in  
transition zones and steam superheaters of boiler systems.  
Teploenergetika 10 no.7:12-16 Jl '63. (MIRA 16:7)

1. Energeticheskiy institut im. Krzhizhanovskogo.  
(Boilers)

BELYAYEV, V.I., inzh.

Selecting the optimum gas flow rate in regenerative air heaters.  
Teploenergetika 9 no.2:30-31 F '62. (MIRA 15:2)

1. Energeticheskiy institut AN SSSR.  
(Boilers--Desing and construction)

KAMENSKIY, S.K., inzh.; BELYAYEV, V.I., inzh.

Basic trends in the development of turbomachine construction in the  
U.S.A. during the period from 1950-1960, and some of its prospects.  
Teploenergetika 8 no.12:81-82 D '61. (MIRA 14:12)  
(United States--Turbomachines--Design and construction)

BELYAYEV, V.I., inzh.; KAMENSKIY, S.K., inzh.

Basic trends in the development of boiler design and construction  
in the U.S.A. from 1950 to 1960, and its immediate prospects.  
Energomashinostroenie 7 no.12:43-45 D '61. (MIRA 14:12)  
(United States--Boilers--Design and construction)

IYAKHOVICH, L.S.; BELYAYEV, V.I.; ROMAN, O.V., kand.tekhn.nauk,dots.,  
retsenzent; AKALOVICH, N.M., red.; KONCHITS, Ye.P., tekhn.  
red.

[Nitriding steel by heating with high frequency currents] Azo-  
tirovanie stali nagrevom tokami vysokoi chastoty. Minsk, Izd-  
vo M-va vysshego, srednego spetsial'nogo i professional'nogo  
obrazovaniia BSSR, 1961. 44 p. (MIRA 15:7)  
(Case hardening) (Induction heating)

MATVEYEV, G.A., doktor tekhn.nauk; BEIYAYEV, V.I., inzh.

Choice of optimum gas velocities in feed-water economizers.  
Elek. sta. 31 no.9:16-19 S '60. (MIRA 14:10)  
(Boilers)

STYRIKOVICH, M.A.; MATVEYEV, G.A., doktor tekhn.nauk; BELYAYEV,  
V.I., inzh.

Selecting the optimal temperature for flue gases of  
power boilers. Teploenergetika 7 no.7:27-32 J1 '60.  
(MIRA 13:7)

1. Energeticheskiy institut AN SSSR. 2. Chlen-korres-  
pondent AN SSSR (for Styrikovich).  
(Boilers)

MATVYEV, G.A., doktor tekhn.nauk prof.; BELYAYEV, V.I., inzh.

Choice of optimum gas velocities in tubular air preheaters of boiler systems. Izv.vys.ucheb.zav.; energ. 3 no.10:88-92 O '60.

(MIRA 13:11)

1. Energeticheskiy institut imeni G.M.Krzhizhanovskogo AN SSSR.  
(Boilers) (Air preheaters)

ACC NR: AP602221

The analysis indicated that fog seeding may cause a considerable increase in temperatures near ground level in southern regions of the Soviet Union. Orig. art. has: 4 formulas, 1 table, and 3 figures.

SUB CODE: 04/ SURM DATE: 14Jul65/ ORIG REF: 005

Card 2/2

ACC NR: AP6022221

SOURCE CODE: UR/0362/66/002/006/0630/0635

AUTHOR: Belyayev, V. I.; Vyaltsev, V. V.; Pavlova, I. S.

ORG: Marine Hydrophysics Institute (Morskoy gidrofizicheskiy institut)

TITLE: An experiment of weather modification by seeding of fog with dry ice

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 2, no. 6, 1966, 630-635

TOPIC TAGS: weather modification, fog, atmospheric temperature gradient

ABSTRACT: The weather modification by fog seeding from an aeroplane on Jan 12 1961 in the district of Nal'chik is described and analyzed. The city, district, and the northern Caucasus were surrounded by uniform meteorologic conditions and the fog was defined as a type lasting usually to the afternoon and sometimes for several days. The wind direction and velocity were defined by circular seeding. Clearing over city and airport were achieved by seeding in and against the wind direction, and the resulting clearing was supported by additional approaches from the wind-exposed direction. Temperatures at ground level increased during the experiment from -4.6 C at 8.35 a.m. to 3 C at 1 p.m. The contribution of the seeding experiment to the atmospheric radiation balance and temperature increase was analyzed. The heat  $\Delta Q$ , entering the lower atmosphere due to the clearing, was estimated as  $5.3 \cdot 10^{13}$  cal.

UDC: 551.509.615

Card 1/2

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Card 2/2

1996-1997 学年第一学期

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WILLIAM H. COOPER, JR., 1961-67. WILLIAM H. COOPER, JR., 1968-70. WILLIAM H. COOPER, JR., 1971-73. WILLIAM H. COOPER, JR., 1974-76. WILLIAM H. COOPER, JR., 1977-79. WILLIAM H. COOPER, JR., 1980-82. WILLIAM H. COOPER, JR., 1983-85. WILLIAM H. COOPER, JR., 1986-88. WILLIAM H. COOPER, JR., 1989-91. WILLIAM H. COOPER, JR., 1992-94. WILLIAM H. COOPER, JR., 1995-97. WILLIAM H. COOPER, JR., 1998-2000.

1950-1951 学年第二学期期中考试卷 五年级数学

This is a research proposal on mathematical optimization and its applications. The main objective is to show the application of the theory of optimization to the solution of problems of different types and to demonstrate the effectiveness of the proposed methods. The research will be conducted in several directions: 1) Development of new methods for solving optimization problems in various fields of science and technology; 2) Application of optimization methods to solve specific problems in various fields of science and technology; 3) Analysis and synthesis of optimization models and algorithms; 4) Application of optimization methods to solve practical problems in various fields of science and technology.

Chap. 4

L 17533-63

EVT(1)/BDS AFITC/ASD/BSD-3/APGC P1-4 RB

ACCESSION NR: AP3004423

8/0020/63/151/004/0841/0844

AUTHOR: Belyavev, V. I.

TITLE: Theory of crystallization propagation in supercooled clouds ✓

SOURCE: AN SSSR. Doklady\*, v. 151, no. 4, 1963, 841-844

TOPIC TAGS: geophysics, supercooled cloud

ABSTRACT: Author supplements the existing theories of crystallization in supercooled clouds by considering the precipitation of ice crystals from the cloud. It has been shown in several references that the crystallization occurs in a very narrow frontal zone separating the liquid and crystalline phases. In this work, a system of equations is derived describing the balance of vapor in the frontal zone. From a qualitative analysis of these equations, a lower limit for the concentration of ice nuclei is obtained above which the propagation of crystallization in the supercooled cloud is possible. Orig. art. has: 2 figures and 15 equations.

ASSOCIATION: Morskoy gidrofizicheskiy institut Akademii nauk USSR (Naval Hydro-physics Institute, Academy of Sciences, UkrSSR).

Cord 1/1

BELYAYEV, V.I.; PAVLOVA, I.S.; RYABOV, V.M.

Methodology of dispersing clouds over large areas. Izv. AN SSSR.  
Ser. geofiz. no.9:1410-1416 S '63. (MIRA 16:10)